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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/762,105

DATE: 10/25/2002

TIME: 16:16:29

Input Set : A:\09762105.txt

Output Set: N:\CRF4\10252002\I762105.raw

4 <110> APPLICANT: Rutgers, The State University of New Jersey
 5 Maliga, Pal
 6 Kuroda, Hiroshi
 7 Khan, Muhammad Sarwar
 9 <120> TITLE OF INVENTION: Translation Control Elements for
 10 High-Level Protein Expression in the Plastids of Higher
 11 Plants and Methods of Use Thereof
 14 <130> FILE REFERENCE: Rut 00-0010
 16 <140> CURRENT APPLICATION NUMBER: 09/762,105
 17 <141> CURRENT FILING DATE: 2001-04-23
 19 <150> PRIOR APPLICATION NUMBER: PCT/US99/17806
 20 <151> PRIOR FILING DATE: 1999-08-03
 22 <150> PRIOR APPLICATION NUMBER: 60/138,764
 23 <151> PRIOR FILING DATE: 1999-06-11
 25 <150> PRIOR APPLICATION NUMBER: 60/095,163
 26 <151> PRIOR FILING DATE: 1998-08-03
 28 <150> PRIOR APPLICATION NUMBER: 60/095,167
 29 <151> PRIOR FILING DATE: 1998-08-03
 31 <150> PRIOR APPLICATION NUMBER: 60/112,257
 32 <151> PRIOR FILING DATE: 1998-12-15
 34 <150> PRIOR APPLICATION NUMBER: 60/131,611
 35 <151> PRIOR FILING DATE: 1999-04-29
 37 <160> NUMBER OF SEQ ID NOS: 106
 39 <170> SOFTWARE: FastSEQ for Windows Version 3.0
 41 <210> SEQ ID NO: 1
 42 <211> LENGTH: 227
 43 <212> TYPE: DNA
 44 <213> ORGANISM: Artificial Sequence
 46 <220> FEATURE:
 47 <223> OTHER INFORMATION: Synthetic sequence
 49 <400> SEQUENCE: 1
 50 gagctcgcgc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg 60
 51 agggggcagg gatggetata tttctgggag aattaaccga tcgacgtgca agcggacatt 120
 52 tattttaaat tcgataattt ttgcaaaaac atttcgacat atttatttat tttattatta 180
 53 tgagaatcaa tcctactact tctggttctg gggtttccac ggctagc 227
 55 <210> SEQ ID NO: 2
 56 <211> LENGTH: 191
 57 <212> TYPE: DNA
 58 <213> ORGANISM: Artificial Sequence
 60 <220> FEATURE:
 61 <223> OTHER INFORMATION: Synthetic sequence
 63 <400> SEQUENCE: 2
 64 gagctcgcgc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg 60

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65 aggggggcagg gatggctata tttctgggag aattaaccga tcgacgtgca agcggacatt      120
66 tatttttaaatt tcgataaatt ttgcaaaaac atttcgacat atttatttat tttattatta      180
67 tgagagctag c                                                              191
69 <210> SEQ ID NO: 3
70 <211> LENGTH: 227
71 <212> TYPE: DNA
72 <213> ORGANISM: Artificial Sequence
74 <220> FEATURE:
75 <223> OTHER INFORMATION: Synthetic sequence
77 <400> SEQUENCE: 3
78 gagctcgctc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
79 aggggggcagg gatggctata tttctgggag aattaaccga tcgacgtgca agcggacatt      120
80 tatttttaaatt tcgataaatt ttgcaaaaac atttcgacat atttatttat tttattatta      180
81 tgagaataaaa cccgacaaca agtggaagtg ggggtgccac ggctagc                    227
83 <210> SEQ ID NO: 4
84 <211> LENGTH: 196
85 <212> TYPE: DNA
86 <213> ORGANISM: Artificial Sequence
88 <220> FEATURE:
89 <223> OTHER INFORMATION: Synthetic sequence
91 <400> SEQUENCE: 4
92 gagctcgctc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
93 aggggggcagg gatggctata tttctgggag ttacgtttcc acctcaaagt gaaatatagt      120
94 atttagttct ttctttcatt taatgcctat tgggtgtcca aaagtccctt tccgaagtc      180
95 tggagaggaa gctagc                                                        196
97 <210> SEQ ID NO: 5
98 <211> LENGTH: 154
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Synthetic sequence
105 <400> SEQUENCE: 5
106 gagctcgctc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
107 aggggggcagg gatggctata tttctgggag ttacgtttcc acctcaaagt gaaatatagt      120
108 atttagttct ttctttcatt taatgcctgc tagc                                154
110 <210> SEQ ID NO: 6
111 <211> LENGTH: 195
112 <212> TYPE: DNA
113 <213> ORGANISM: Artificial Sequence
115 <220> FEATURE:
116 <223> OTHER INFORMATION: Synthetic sequence
118 <400> SEQUENCE: 6
119 gagctcgctc ccccgccgtc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
120 aggggggcagg gatggctata tttctgggag tcgagtagac cttgttggtg tgaaaattct      120
121 taattcatga gttgtaggga gggatttatg tcaccacaaa cagagactaa agcaagtgtt      180
122 ggattcaaag ctagc                                                        195
124 <210> SEQ ID NO: 7
125 <211> LENGTH: 159
126 <212> TYPE: DNA

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127 <213> ORGANISM: Artificial Sequence
129 <220> FEATURE:
130 <223> OTHER INFORMATION: Synthetic sequence
132 <400> SEQUENCE: 7
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134 aggggggcagg gatggctata tttctgggag tcgagtagac cttgttggtg tgaaaattct      120
135 taattcatga gttgtaggga gggatttatg tcagctagc                                159
137 <210> SEQ ID NO: 8
138 <211> LENGTH: 195
139 <212> TYPE: DNA
140 <213> ORGANISM: Artificial Sequence
142 <220> FEATURE:
143 <223> OTHER INFORMATION: Synthetic sequence
145 <400> SEQUENCE: 8
146 gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
147 aggggggcagg gatggctata tttctgggag tcgagtagac cttgttggtg tgaaaattct      120
148 taattcatga gttgtaggga gggatttatg aguccucaga cagaaacaaa agccucagta      180
149 ggattcaaag ctacg                                195
151 <210> SEQ ID NO: 9
152 <211> LENGTH: 195
153 <212> TYPE: DNA
154 <213> ORGANISM: Artificial Sequence
156 <220> FEATURE:
157 <223> OTHER INFORMATION: Synthetic sequence
159 <400> SEQUENCE: 9
160 gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
161 aggggggcagg gatggctata tttctgggag caatgcaata aagttacgta gtgtctatTT      120
162 atctttgata taagggggtat ttccatgggt ttgccttggg atcgtgttca taccgttgta      180
163 ttgaatgatg ctacg                                195
165 <210> SEQ ID NO: 10
166 <211> LENGTH: 153
167 <212> TYPE: DNA
168 <213> ORGANISM: Artificial Sequence
170 <220> FEATURE:
171 <223> OTHER INFORMATION: Synthetic sequence
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175 aggggggcagg gatggctata tttctgggag caatgcaata aagttacgta gtgtctatTT      120
176 atctttgata taagggggtat ttccatgggt agc                                153
178 <210> SEQ ID NO: 11
179 <211> LENGTH: 201
180 <212> TYPE: DNA
181 <213> ORGANISM: Artificial Sequence
183 <220> FEATURE:
184 <223> OTHER INFORMATION: Synthetic sequence
186 <400> SEQUENCE: 11
187 gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
188 aggggggcagg gatggctata tttctgggaa aaaagccttc cattttctat tttgatttgt      120
189 agaaaactag tgtgcttggg agtccctgat gattaaataa accaagattt taccatgact      180

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190  gcaatttttag agagagctag c                               201
192 <210> SEQ ID NO: 12
193 <211> LENGTH: 183
194 <212> TYPE: DNA
195 <213> ORGANISM: Artificial Sequence
197 <220> FEATURE:
198 <223> OTHER INFORMATION: Synthetic sequence
200 <400> SEQUENCE: 12
201  gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
202  aggggggcagg gatggctata tttctgggaa aaaagccttc cattttctat tttgatttgt      120
203  agaaaaactag tgtgcttggg agtccctgat gattaaataa accaagattt taccatggct      180
204  agc                                                                183
206 <210> SEQ ID NO: 13
207 <211> LENGTH: 185
208 <212> TYPE: DNA
209 <213> ORGANISM: Artificial Sequence
211 <220> FEATURE:
212 <223> OTHER INFORMATION: Synthetic sequence
214 <400> SEQUENCE: 13
215  gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
216  aggggggcagg gatggctata tttctgggag caaaaagcct tccattttct attttgattt      120
217  gtagaaaact agtgtgcttg ggagtccttg atgattaaat aaaccaagat tttaccatgg      180
218  ctatgc                                                                185
220 <210> SEQ ID NO: 14
221 <211> LENGTH: 182
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: Synthetic sequence
228 <400> SEQUENCE: 14
229  gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
230  aggggggcagg gatggctata tttctgggag ggagaccaca acggtttccc actagaaata      120
231  attttgttta actttaagaa ggagatatac atatggcaag catgactggt ggacaggcta      180
232  gc                                                                182
234 <210> SEQ ID NO: 15
235 <211> LENGTH: 182
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Synthetic sequence
242 <400> SEQUENCE: 15
243  gagctcgctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg gattgacgtg      60
244  aggggggcagg gatggctata tttctgggag ggagaccaca acggtttccc actagaaata      120
245  attttgttta actttaagaa ggagatatac atatggcaat cactagccct gccttggcta      180
246  gc                                                                182
248 <210> SEQ ID NO: 16
249 <211> LENGTH: 161
250 <212> TYPE: DNA
251 <213> ORGANISM: Artificial Sequence

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253 <220> FEATURE:
254 <223> OTHER INFORMATION: Synthetic sequence
256 <400> SEQUENCE: 16
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258 agggggcagg gatggctata tttctgggag ggagaccaca acggtttccc actagaaata      120
259 attttgttta actttaagaa ggagatatac atatggctag c                          161
261 <210> SEQ ID NO: 17
262 <211> LENGTH: 1183
263 <212> TYPE: DNA
264 <213> ORGANISM: Artificial Sequence
266 <220> FEATURE:
267 <223> OTHER INFORMATION: Synthetic sequence
269 <400> SEQUENCE: 17
270 gagctcggta cccaaagctc ccccgccgctc gttcaatgag aatggataag aggctcgtgg      60
271 gattgacgtg agggggcagg gatggctata tttctgggag cgaactccgg gcgaatacga      120
272 agcgcttgga tacagttgta gggagggatc catggctagc attgaacaag atggattgca      180
273 cgcaggttct ccggccgctt gggtagagag gctattcggc tatgactggg cacaacagac      240
274 aatcggtgc tctgatgccg ccgtgttccg gctgtcagcg caggggcccgc cggttctttt      300
275 tgtcaagacc gacctgtccg gtgccctgaa tgaactccag gacgaggcag cgcggctatc      360
276 gtggctggcc acgacggggc ttccttgccg agctgtgctc gacgttgta ctgaagcggg      420
277 aagggactgg ctgctattgg gcgaagtgcc ggggcaggat ctctgtcat ctcaccttgc      480
278 tcctgccgag aaagtatcca tcatggctga tgcaatgcgg cggtgcata cgcttgatcc      540
279 ggctacctgc ccattcgacc accaagcgaa acatcgcatc gagcgagcac gtactcggat      600
280 ggaagccggt cttgtcgatc aggatgatct ggacgaagag catcaggggc tcgcgccagc      660
281 cgaactgttc gccaggctca aggcgcgcat gcccgcggc gaggatctcg tcgtgacaca      720
282 tggcgatgcc tgcttgccga atatcatggt ggaatatggc cgcttttctg gattcatcga      780
283 ctgtggccgg ctgggtgtgg cggaccgcta tcaggacata gcgttggtta cccgtgatat      840
284 tgctgaagag cttggcggcg aatgggctga ccgcttcctc gtgctttacg gtatcgccgc      900
285 tcccgattcg cagcgcacgc cttctatcgc cttcttgac gagttcttct gagcgggtct      960
286 agagtagaca ttagcagata aattagcagg aaataaagaa ggataaggag aaagaactca     1020
287 agtaattatc cttcgtttct ttaattgaat tgcaattaaa ctcggcccaa tcttttacta     1080
288 aaaggattga gccgaataca acaaagattc tattgcatat attttgacta agtatatact     1140
289 tacctagata tacaagattt gaaatacaaa atctagcaag ctt                          1183
291 <210> SEQ ID NO: 18
292 <211> LENGTH: 610
293 <212> TYPE: DNA
294 <213> ORGANISM: Artificial Sequence
296 <220> FEATURE:
297 <223> OTHER INFORMATION: Synthetic sequence
299 <400> SEQUENCE: 18
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301 aggcggacat gccggcggtc tgcaccatcg tcaaccacta catcgagaca agcacggtca      120
302 acttccgtac cgagccgcag gaaccgcagg agtggacgga cgacctcgtc cgtctgcggg      180
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306 aggcacaggg cttcaagagc gtggctcgctg tcatcgggct gcccaacgac ccgagcgtgc      420
307 gcatgcacga ggcgctcgga tatgcccccc gcggcatgct gcgggcccgc ggcttcaagc      480
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/762,105

DATE: 10/25/2002

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